

## WHAT IS CLAIMED IS:

1. A communication system comprising a first network including a switching node for transmitting a non-bandwidth-compressed signal and a second network including a switching node for transmitting a bandwidth-compressed signal, said switching node of said first network including a transcoder for performing a conversion between the bandwidth-compressed signal and the non-bandwidth-compressed signal, said switching node of said first network being operable in either a first mode for transmitting the non-bandwidth compressed signal by inserting said transcoder to convert the bandwidth compressed signal into the non-bandwidth-compressed signal or a second mode for transmitting the bandwidth-compressed signal by by-passing said transcoder, said switching node of said first network including means for inserting said transcoder in said second mode by inquiring of said switching node of said second network about a setting information of said transcoder and setting said transcoder on the basis of a response from said switching node of said second network.

2. A communication system comprising a radio access network including a switching node for transmitting an audio signal as a bandwidth-compressed signal and a core network including at least one switching node for transmitting an audio signal as a bandwidth-compressed signal, said switching node of said core network including a transcoder for performing a conversion between the bandwidth-compressed signal and the non-bandwidth-compressed signal, said switching node of said core network being operable in a transcoder-free-operation connection mode for transmitting and receiving the bandwidth-compressed signal between a calling terminal and a called terminal mutually according to a negotiation between said calling terminal and said

called terminal by by-passing said transcoder, wherein said switching node of said core network including means for inquiring of said switching node of said radio access network about a setting information of said transcoder for bandwidth-compression set in a call in said transcoder-free-operation connection when said transcoder is inserted for the call of said transcoder-free-operation connection and means for setting said transcoder on the basis of the setting information from said switching node of said radio access network and inserting said transcoder.

3. A communication system as claimed in claim 2, wherein the audio signal is bandwidth compressed in said radio access network by an adaptive multi rate coding system, the setting information for the bandwidth compression is rab sub-flow combination identifier information indicative of a value of a mapping table determining a conversion rate of an audio coding frame in the adaptive multi rate coding system.

4. A communication system as claimed in claim 2, wherein the inquiry of the setting information is performed by using a user layer of an Iu interface defined as an interface between said switching node of said core network and said switching node of said radio access network.

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5. A communication system comprising a radio access network including a switching node for transmitting an audio signal as a bandwidth compressed signal and a core network including at least one switching node for transmitting an audio signal as a bandwidth compressed signal, said switching node of said core network including a transcoder for performing a conversion between the bandwidth compressed signal and the non-bandwidth-compressed signal, said switching node of said core network being operable in a first mode

for transmitting the non-bandwidth-compressed signal by inserting said transcoder to perform a conversion between the bandwidth-compressed signal into the non-bandwidth-compressed signal or a second mode for transmitting the bandwidth-compressed signal by by-passing said transcoder, wherein switching node of said core network inquires of said switching node of said radio access network about a setting information of said transcoder for said transcoder-free-operation connection in said second mode, sets said transcoder on the basis of the setting information from said switching node of said radio access network and inserting said transcoder.

6. A communication system as claimed in claim 5, wherein said inquiry is performed by using a user layer of an Iu interface defined as an interface of said switching node of said core network and said switching node of said radio access network.

7. A communication system as claimed in claim 5, wherein said setting information of said transcoder is a rab sub-flow combination identifier information of an adaptive multi rate coding system.

8. A switching node operable in either a first mode in which a transcoder is inserted to perform a conversion between a bandwidth-compressed signal and a non-bandwidth-compressed signal or a second mode in which a bandwidth-compressed signal is transmitted by by-passing said transcoder, comprising means for, in said second mode, inquiring of another switching node about a setting information of said transcoder and inserting said transcoder on the basis of the setting information from said another switching node.

9. A switching node as claimed in claim 8, wherein said switching node is

a switching node opposing to a switching node of a radio access network in which an audio signal is transmitted as a bandwidth-compressed signal and the setting information is a rab sub-flow combination identifier information in an  
5 adaptive multi rate coding system.

10. A method for inserting a transcoder of a switching node operable in either a first mode in which said transcoder is inserted to perform a conversion between a bandwidth-compressed signal and a non-bandwidth-compressed signal or a second mode in which a bandwidth-compressed is transmitted by  
5 by-passing said transcoder, wherein, in said second mode, said switching node inquires of another switching node about a setting information of said transcoder and inserting said transcoder on the basis of the setting information from said another switching node.

11. A method as claimed in claim 10, wherein said switching node is a switching node opposing to a switching node of a radio access network in which an audio signal is transmitted as a bandwidth compressed signal and the setting information is a rab sub-flow combination identifier information in an  
5 adaptive multi rate coding system.